Activities

The Nonpoint Source Program (NPSP) supports a wide variety of activities and personnel to coordinate with other state and federal programs, citizens groups, businesses and other stakeholders to reduce or prevent nonpoint source pollution. Some of the personnel serve as Basin Coordinators, project managers, monitoring coordinators and educators to support the goals of the NPSP. Most of this effort is supported by the S319 base funds. Activities include public outreach regarding reducing pollution from construction, agriculture, logging and residences. The NPSP conducts programs for volunteer stream monitoring, workshops for industry personnel and school environmental programs. Following are the major accomplishments of the NPSP for non-project activities.

Mid-Atlantic Volunteer Monitoring Conference

The third Mid-Atlantic volunteer monitoring conference was held at Canaan Valley Resort on November 4-5, 2005. This conference was sponsored by the US Environmental Protection Agency Nonpoint Source Program. The conference was hosted by the West Virginia Department of Environmental Protection, in cooperation with the West Virginia Conservation Agency's Watershed Resource Center, Tetra Tech, Virginia Department of Environmental Quality, Pennsylvania Department of Environmental Protection, and Maryland Department of Natural Resources. It had been seven years since the last region wide conference was held in the Mid Atlantic States (Region 3: Maryland, Delaware, Pennsylvania, Virginia, D.C. and West Virginia).

The conference was a very successful event for all who attended. Many monitoring skills, technical advances, organizational and programmatic ideas and advocacy and partnership building approaches were addressed to over 125 attendees throughout the region. The conference also provided an opportunity for volunteers and program coordinators to reenergize around current issues, make new contacts, and develop a network of support throughout the region.

West Virginia Save Our Streams Program (Volunteer Monitoring)

During FY 2006 WV Save Our Streams (WVSOS) provided a variety of presentations, workshops, and set-up displays at many different meetings, fairs and other events. Workshops and presentations are defined as a scheduled program event discussing and teaching some aspect of water quality using hands-on approaches. At a minimum they are one hour in length and have some type of educational and outreach value for the participants.

Table 5: WVSOS Activity in FY 2006

Month	Workshops		Presentations	
October	71	4	212	2
November	12	1	13	1
December	4	1	17	1
January	19	2	4	1
February	51	2	770	2
March	56	4	34	1
April	115	6	463	4
May	48	2	800	3
June	89	5	32	2
July	40	2	21	3
August	64	4	347	5
September	18	2	323	3
Totals	**591**	**35**	**3359**	**28**

The columns are divided to show the number of participants on the left and the number of events on the right.

The largest number of participants occurred in May due to the program's participation in the National Water Quality Monitoring Conference (NWQMC) in San Jose California. Tim Craddock, DEP's Volunteer Monitoring Coordinator made several presentations were provided during this conference focusing on the development and application of the new Volunteer Assessment Database (VAD). Large numbers are also seen in April due to Earth Day celebrations and the Envirothon Competition, and in September due to the programs annual participation in the Ohio River Celebration.

The number of workshops provided during this period exceeded previous years for the same period by about 10% and the total number of participants increased by 15%. The number of participants reached due to presentations far exceeded last year and overall was about 25% higher than 2004, the last year the program attended the NWQMC.

A total of 205 volunteer monitors were certified, which is 54% of the total that participated in stream monitoring workshops (32 additional certification tests are pending). This total is slightly less than last year for the same period; however several of the volunteers came from counties not previously serviced and the program also attracted a significant number of participants from the surrounding states of Maryland, Virginia

and Pennsylvania. WVSOS was involved in a wide variety of water related activities during the period involving not only volunteer monitors, but also several educational institutions and state, federal and non-governmental partners.

Several projects are on-going; these include participation in the Spring Run Monitoring Project, Stream Scholars Program, Mountain Institute's: Potomac Stream Samplers Program, and project monitoring with the Upper Guyandotte Watershed Association, Friends of Decker's Creek, Friends of the Cheat, Morris Creek Watershed Association and Sleepy Creek Watershed Association.

Project monitoring involves select watershed associations that have received grants and/or technical assistance from DEP's Non-point Source Program. WVSOS works with these groups to develop appropriate quality assurance and quality control and sustainable monitoring goals and objectives. The program has developed a field kit and designed specific techniques that will produce reliable/comparable results and are more cost efficient, but more importantly volunteer friendly.

Students from WVU Tech sample macroinvertebrates from Morris Creek.

Robert Williams, an intern from Georgetown University returned this year to add to and upgrade the VAD. These upgrades use the latest version of cold fusion and macromedia software and will include new reporting and querying capabilities. These updates will be available late in 2006 or early 2007. There are currently more than 900 stream surveys in the database, which are periodically checked for quality assurance, verifying location information and making corrections as necessary. The VAD can be accessed through the program's web page at http://www.wvdep.org/dwwm/wvsos/vad/index.htm.

The Potomac Stream Samplers Program has grown to full capacity involving ten teachers, Mountain Institute staff and more than 300 students with the Potomac Basin, even including Pennsylvania. The program relies on WV Save Our Streams to provide training and support and inputs the data collected into the VAD. The VAD is used to share and report information among participating schools.

A full comprehensive report will be completed in the winter or early spring of 2007. This report will include more detail of the information provided here as well as water quality information from volunteers all across West Virginia. For more details about the WV Save Our Streams Program and its resources visit http://www.wvdep.org/dwwm/wvsos.

West Virginia Conservation Agency

West Virginia Conservation Agency (WVCA) is a major partner in the NPSP, the agency's primary goal is to reduce sediment from a variety of nonpoint sources. The WVCA personnel focus on education, outreach, watershed planning and project implementation for agriculture, construction and stream bank restoration.

In an effort to educate the public on the effects of sediment to water quality, a joint presentation was given to the Southeastern ICEA in Peachtree City, GA. This presentation, "Sediment Challenges, Wild Mountains, Rolling Streams" was attended by 30 professionals from the southeastern area of the U.S. In cooperation with the WVCA Watershed Resource Center, the "Sediment Challenges" presentation was offered during the 2006 Contractor's Expo. This presentation was attended by 95 professionals.

Students were the principal recipients of educational efforts. Working with the Environmental Science teacher at Preston High School with his students (three classes of 80 students) a nearby stream was visited. An intermediate level Save Our Streams training as well as some chemical water analysis was performed. Students sampled, observed, measured, and recorded data at the site, which is in its third year of monitoring. The class has sufficient data to make comparative analysis of the state of this stream.

The WVCA Watershed Resource Center's Sediment Challenges in West Virginia workshop presented by Environmental Specialists at the ACF Environmental (*left*), which was attended by approximately 95 attendees. Approximately 100 contractor surveys were collected through a team effort from the WVCA staff. These surveys will determine the need for an environmental contractor certification in West Virginia. More than 100 Roads to Rivers DVDs, 200 sediment brochures, and 200 Help for Dirt Roads fact sheets were distributed to increase the public's awareness of the effects of sediment on our rivers and streams.

SCPT volunteers establish a riparian zone.

The WVCA provided support and guidance to 15 local watershed associations with nonpoint source issues by assisting with meeting development/facilitation, project development, education and outreach, and provide technical assistance on nonpoint source issues including the Little Grave Creek stream bank project.

The Sleepy Creek Watershed was one of the two watersheds chosen through a stakeholder process last fall to be top priorities for implementation of West Virginia's Potomac Tributary

Strategy, a part of a multi-state Chesapeake Bay restoration effort. The Sleepy Creek Project Team (SCPT) was formed for planning and implementing projects. They are awaiting the TMDL to develop a watershed based plan.

The SCPT organized a project that stabilized 135 feet of the stream and established a 35 ft riparian buffer using native trees and shrubs. The team planted a 100 by 35 ft riparian buffer along the completed stream bank. 72 native shrubs and trees, such as Dogwood, Pin Oak, Sycamore, Silver Maple and Tulip Poplar were planted.

In agricultural activities WVCA Environmental Specialists developed 44 nutrient management plans reducing a total of 6613 pounds of nitrogen and 625 lbs Phosphorus. Develop 111 farm plans to increase the amount of grass and reduce the amount of soil erosion on the field through proper application of lime.

Agriculture outreach, education and assistance activities included:

- Streambank Restoration and Riparian Buffer Projects – 79 attendees
- Distributed 11,500 trees and shrubs to 300 landowners
- Youth oriented presentations – 1650 individuals
- Tygart Valley CD, Charlie Helmick Field Day, 36 attendees (May)
- Pasture Walk/Field Days, - 62 attendees
- Distributed 50 outreach bags with WOW bookmark, “Who’s Polluted” fact sheet, watershed poster, and water quality standards crossword puzzle at Cedar Lakes Conservation Camp 5/06
- Distributed 125 Roads to Rivers DVDs, Help for Dirt Roads Fact Sheets at the Forestry Workshop 4/06

As coal mining activities increase an significant amount of funding has been required as mitigation for damage to streams due to this activity. The WVCA has staff dedicated to stream bank stabilization projects and in partnership with the WVDEP NPSP is working to incorporate stream bank stabilization into TMDL implementation efforts in priority watersheds. In Cabin Creek the Ohley Stream Restoration Project is using funding from the mine mitigation fund to restore a severely degraded part of Cabin Creek. Cabin Creek is an impaired stream listed on the 303(d) list for violations of water quality standards for metals, fecal and biological impairment. The Upper Kanawha TMDL calls for reductions of metals and sediment from Cabin Creek. The proposed project will install natural stream channel design structures such as J-hooks and weirs to protect eroding banks. A depositional flood plain will be stabilized and vegetated, mid-channel bars will be removed and the channel will be sized and directed to facilitate sediment transport downstream. The design of the structures will create pockets and pools and other habitat enhancements for fish. This project is being pursued in cooperation with the Cabin Creek Project Team, WVCA, and WV DEP.

Office of Oil and Gas

WVDEP's Office of Oil & Gas (OO&G) has primary responsibility to regulate the oil and gas industry. As energy costs rise there is an increase in oil and gas drilling and extraction. While most of those activities are regulated through permits there is an unregulated nonpoint source component to these activities. The greatest amount of pollution from these activities occurs from runoff from active and abandoned service roads. Active roads are bonded under the permit but many abandoned and unregulated multi-use roads still produce large amounts of sediment long after the drilling and extraction activities cease. The NPSP funds one employee in the OO&G to conduct training workshops for oil and gas companies on how to use BMPs on roads and to develop projects for unregulated road stabilization and retirement in priority watersheds. In 2006 the project focus was in the Little Sandy and Upper Buckhannon watersheds.

In 2006 16 BMP Training Workshops were given with 392 participants representing 51 companies and contractors.

WV Division of Forestry

The WV Division of Forestry (WVDOF) is the lead management agency for implementation of the silvicultural nonpoint source pollution program. The Division's Water Quality program addresses training and education, cooperative efforts with associated governmental agencies, non-profit groups and monitoring of timber harvesting through licensing, certification, job notification, posting and enforcement. WVDOF field personnel participate in local watershed meetings and strategy for improvements and are also active in the WV Watershed network and Stream Partners Programs.

NPSP Activities Conducted in 2006:

- Implemented a LSCA standard operating procedure for current and future employees to achieve statewide uniformity of the program.
- The licensing process for certified timber operators and certified loggers has been reviewed and improvements in communications statewide are progressively being achieved.
- The BMP manual was updated and made available on the WVDOF website.
- The production of a special brochure "The WV Logging Sediment Control Act One of the Nation's Toughest Forestry Laws". This brochure has been successful and 2500 more copies are being printed.
- Received 1571 timbering notifications
- Conducted 6359 logging investigations.
- Held 68 training workshops training 1271 individuals.
- Issued 1171 new timbering operations licenses.
- Issued 1621 new certified logger licenses.
- Logging and forest fire data continue to be provided to WVDEP for TMDL module development for particular watersheds.

WV Public Health Sanitation Division

The WV Public Health Sanitation Division (PHS), of the Office of Environmental Resources as a partner in the NPSP focuses on nonpoint source pollution from failing residential decentralized wastewater treatment (septic systems). The Sanitarian Chief position, funded directly under the S319 grant, was filled on August 15th, 2006. This individual, headquartered in the Fairmont District Office, has the lead in directing priority watershed work.

A recent new focus on planning for the incremental project in the Devil's Fork of the Upper Guyandotte Watershed centers on the town of Amigo, in Raleigh County. PHS personnel recently made a joint site visit with WVDEP, and Canaan Valley Institute (CVI) personnel, as well as the local Public Service District (PSD) representatives, and others. The PSD has been brought into the project in an early stage in order to enlist their cooperation for future operation and maintenance of any sewage facilities, which might be installed. Idle land belonging to coal companies, which might be available for in-ground sewage disposal of wastewater, was identified and targeted for future evaluation. PHS will assist in this evaluation, and subsequent system design.

Work is also being done in connection with two other potential incremental projects in the Little Sandy, Tug Fork and Upper Buckhannon watersheds. Efforts in the small town of Ashland, in McDowell County are to upgrade sewage disposal facilities for 24 residences, which currently discharge directly to the stream. PHS has worked with the CVI in their effort to secure Section 319 funding to convert the straight pipe discharges to permitted soil absorption disposal systems. PHS has contributed in site evaluation and system design, and is currently working with CVI as they prepare plans for both permit applications, and bidding of the work. Currently in the Little Sandy Creek Watershed, PHS is working with WVDEP personnel in evaluating the locations, and relative proximities of failures noted in the report. This is being done based on the detailed mapping of the survey project provided by the Kanawha County Health Department. The ongoing effort is to locate areas where multiple dwellings could efficiently be served by "cluster" sewage collection with an adjacent area available for in-ground disposal.

Watershed Based Plans

WVDEP has oversight responsibility for the NPSP, the regional Basin Coordinators take a lead role in organizing, coordinating and developing the watershed wide effort to restore streams. The first step after a watershed has been selected as a priority is to organize a project team. The project teams have been the force behind the development of watershed based plans (WBP). In 2006 two older WBPs were updated to reflect new data and sources, these were the Upper Buckhannon and Deckers Creek. Three new WBPs were submitted and approved by EPA, they were the Upper Guyandotte, North Fork of the Blackwater and Tthree Forks Creek. Two WBPs, Wolf Creek and Sand Fork, have had the first draft reviewed and are in the process of addressing comments. Three WBPs in the Potomac are being developed: Sleepy Creek, Opequon Creek and Mill Creek.